



The overview of risks facing the International Banking System

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ABSTRACT

The paper identifies some of the key risks encountered by international banks in their operations, their causes and effects, and prescribe measures to mitigate them. Key risks discussed in this paper include interest rate risk, credit risk, liquidity risk, market risk, operational risk and political risk. The paper concludes that these risks are very critical in the operations of international banks and their impact can be very suicidal to the survival of any bank. The paper therefore suggests the need for every international banks to formulate and implement effective risk management policies that can identify and examine various risk associated with their operations and put in place the appropriate mitigating measure.

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1. Introduction

Banks over the world face numerous risks (Sisko, 2013). The negative impact of these risks can be enormous if not well-managed. These risks must therefore be continually assessed in order to determine the best mitigating measures to apply. Wheatley (2012) in analyzing the three biggest risk facing HSBC, recognizes the existence of risks in the international banking system and need to manage them. Basel I, II and III Accords published by the Basel Committee on Banking Supervision outline various strategies for managing certain risks faced by international banks to achieve stability and soundness of the international banking system. (Benli, 2010; Tarullo, 2008; Chumo, 2011; Chorafas, 2004; Bolt and Tieman, 2004; Basel Committee on Banking Supervision, 2009). The determination of international banking risks and conscious efforts to manage them are critical to the success of any financial system. This is significant because the failure of one bank is capable of undermining the stability and integrity of the financial system as a whole. (Central Bank of Barbados, n.d). As stated by Benz (2002), Basel II Accord aimed at ensuring “soundness and stability of the international banking system and provide “level playing field” for international banks defining standards for the international measurement and requirement of capital adequacy” (p.5). The capital adequacy is to ensure that international banks are well cushioned against certain aspects of risks and to avoid banks’ failures.

This paper identifies and discusses the largest risks facing international banking and how they can be managed.

2. Risks Facing International Banking

Drigă (2012) defines risk as “the possibility that a loss will occur” (p.164). International banks face a number of risks. The largest amongst them include interest rate risk, credit risk, liquidity risk, market risk, operational risk and political risk.

2.1. Interest Rate Risk

Basel Committee on Banking and Supervision defines interest rate risk as “the exposure of a bank's financial condition to adverse movements in interest rates” (Basel Committee on Banking Supervision, 1997, p.6). Snowden (2012) looks at the sources of interest rate risk in term of procedures employed in borrowing short and lending long. Snowden (2012) contends that a bank tends to finance loans with higher interest rates when the duration of bank liabilities is higher than that of its assets. According to Gup (1999), interest rate risk may also be caused by unexpected rise in market interest rates. He indicates that an unexpected rise in interest rate has the potential to reduce net interest income, market value of a bank's assets, and affect borrowers' ability to repay the loan.

The adverse effects of interest rate risk cannot be overemphasized. Sy (2005) recounts banks' susceptibility to treasury losses when interest rate risk is increasing. Interest rate risk also has the potential to create unexpected cost to international banks (Obiri, 2012).

Wilkins and Zeisler (2009) consider interest rate risk as one of the major causes of the US Savings and Loan Crisis in the 1980s where approximately 14% of the 4000 saving and loan institutions failed. Basel Committee on Banking Supervision (1997) recognizes that even though the acceptance of interest rate risk is a normal part of banking, its excessiveness can have a substantial negative impact on a bank's earnings and capital base.

Due to the potential threats posed by increasing interest rate risk to international banks, it is imperative for banks to identify and effectively manage them in order to mitigate their impacts. Gup (1999) proposes that a stable economy could reduce interest rate risk. As indicated by Sy (2005), increase in the contribution of fee income to operating income can also manage interest rate risk. Basel Committee on Banking Supervision (1997) outlines four basic measures to ensure sound interest rate risk management. These are “appropriate board and senior management oversight, adequate risk management policies and procedures, appropriate risk measurement, monitoring and control functions, and comprehensive internal controls and independent audits” (p. 10).

2.2. Credit Risk

Credit risk refers to “the possibility of losing money due to the inability, unwillingness, or nontimeliness of a counterpart to honor a financial obligation” (Bouteille and Coogan-Pusher, 2012, p.3). It is the inability of the borrower to honor debt obligations when they fall due (Snowden, 2012). Bouteille and Coogan-Pusher (2012) outline three concepts associated with inability to pay. These concepts are insolvency, default and bankruptcy. Insolvency describes the financial state of the borrower whose value of assets is below that of its liabilities. Default relates the borrower’s failure to honor contractual obligations when they fall due. Bankruptcy occurs when a borrower recognizes the dying financial situation and files to the court for protection under existing law. According to Van Greuning and Bratanovic (2009), over 70% of a bank’s balance sheet generally relates to credit risk management. Credit risk is therefore the primary cause of bank’s failures.

In order to survive in this competitive global banking industry, it is imperative for each bank to formulate and implement effective credit risk management policies, procedures and strategies. “A bank’s capacity for credit risk management will contribute significantly to the quality of its risk management policies” (Van Greuning and Bratanovic, 2009, p. 7). Bouteille and Coogan-Pusher (2012) indicate that the first requirement of credit risk management is to identify all situations that have the potential of resulting in financial loss adue to default of a borrower. Bouteille and Coogan-Pusher (2012) propose that credit risk portfolio management involves four steps namely origination, credit assessment, portfolio management, and mitigation and transfer. They emphasize the need to understand these steps and perfectly master the way they interact. Again, they provide three fundamental questions for banks to answer in the process of credit risk management:

- What is the amount of credit risk? How much can be lost or what is the total cost if the borrower fails to repay or perform?
- What is the default probability of the borrower? What is the likelihood that the obligor fails to pay or perform?
- How much can be recovered in event of bankruptcy? In the event of nonpayment or nonperformance, what is the remedy and how much can be recovered, in what timeframe, and at what expense?

The Basel Committee for Banking Supervision has done a lot of work on measures to manage credit risk. The 1988 Basel Accord sought to develop a uniform capital requirement for capital risk across major banking countries of the world. However, this Accord failed to take into consideration borrower's creditworthiness, its external rating, the collateral security provided, or the covenants extended. (Saunders and Allen, 2002). This presupposes that loans to low credit rated companies were treated the same way as loans to high credit rated companies. This defect provided incentive for portfolio shifting toward underpriced loans. The Basel II was introduced to correct the mispricing anomaly in the Basel I and include more risk-sensitive measures into capital requirements of banks. (Chorafas, 2004). To further enhance prudent credit risk management, as well as that of other key banking risks, the Basel Committee on Banking Supervision published the Basel III Accord. According to Al-Darwish, Hafeman, Impavido, Kemp, & O'Malley (2011, August), the provisions of treatment of credit risk under Basel II was not materially changed by Basel III. However, Basel III prescribes measures for banks to limit counterparty credit risk (Basel Committee on Banking Supervision, 2010).

2.3. Liquidity Risk

"Liquidity risk refers to the potential for loss to an institution arising from either its inability to meet its obligations as they fall due or to fund increases in assets without incurring unacceptable cost or losses" (Bank of Tanzania, 2010, p. 6). Bank of Tanzania (2010) describes liquidity risk to include failure to:

- Manage unplanned decreases or changes in funding sources
- Recognize or address changes in market conditions that impact the ability of such an institution to quickly sell or disinvest assets at a minimal loss in value or cost.

Liquidity risk is difficult to measure and depends on numerous factors that a capital requirement is able to prevent. (Ruozi and Ferrari, 2013)

Lessambo (2013) indicates that the 2007-2008 financial crises showed how the banks and other financial institutions were not prepared in managing liquidity risk. Prudent management of liquidity risk is therefore very significant as failure to do so may result in inability of the bank to meet its obligations. According to Greuning and Bratanovic (2009), the framework for the management of liquidity risk consists of three aspects namely "measuring and managing net funding requirements, market access and contingency planning" (p. 209). The bank's ability

to determine cumulative net funds flow and putting in place effective strategies to manage excess or deficit is critical in liquidity risk management. Principle 14 of the Basel I Accord provides liquidity management strategy and daily management of liquidity (Lessambo, 2013). Matz (2011) outlines that even though Basel I and II provided some measures for management of funding and liquidity risk, the 2007-2008 financial crises put the limelight on them. As part of reinforcing the management of liquidity risk and avert the recurrence of the financial crisis, Basel III was published with the incorporation of Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio. (Benhi, 2010). Whilst the Liquidity Coverage Ratio addresses the sufficiency of a stock of high quality liquid assets to meet short-term liquidity needs under a specified acute stress scenario, the Net Stable Funding Ratio focuses on addressing longer term liquidity disparities.

2.4. Market Risk

Mbuya (2008) defines market risk as “the risk that a bank may experience a loss in (on and off) balance positions arising from unfavorable movements in market prices” (p. 301). It is the risk that banks may incur losses as a result of changes in interest rates, foreign exchange rates, stock prices and similar market indicators. (Asahi Bank, 2001 as cited in Mbuya, 2008). Chorafas (2011) cites capital loss and lower future income as major effects of market risk. Lessambo (2013) indicates that a bank’s market risk rises as it increasingly operates globally.

Management of market risk management is a key feature of the Basel I Accord. Principle 13 of this Accord made provision for the “identification, measurement, monitoring and controlling of market risk exposures” (Lessambo, 2013, p. 97). The Basel I Accord and its subsequent amendment for market risk in the trading book has become a global standard for evaluating banking risk. (Alexander, 2008). Basel II Accord reinforces provisions for management of market risk by defining trading books as positions in financial instruments and commodities held for the purposes of either trading or hedging other elements of the trading books. (Alexander, 2008). In January 2002, banks were advised to build up Investment Fluctuation Reserve to at least 5% of investment held in Held for Trading and Available for Sale. This was to ensure that banks conform to the Basel requirement for explicit charge for market risk (Sophastienphong & Kulathunga, 2008). Another recommendation was given to banks to maintain capital charge for market in 2004.

Basel III emphasizes the need for more effective market risk management by providing additional requirements for banks to implement. Pillar 1 of this Accord addresses market risk in addition to credit risk and operational risk (Al-Darwish, Hafeman, Impavido, Kemp, & O'Malley, 2011, August).

2.5. Operational Risk

Banking Committee on Banking Supervision defines operational risk as “the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events” (Banking Committee on Banking Supervision, 2001 September, p. 2). The Basel II outlines seven events that amount to operational risk:

- Internal fraud - misappropriation of assets, tax evasion, intentional mismarking of positions, bribery;
- External fraud - theft of information, hacking damage, third-party theft and forgery;
- Employment practices and workplace safety - discrimination, workers compensation, employee health and safety;
- Clients, products, and business practice - market manipulation, antitrust, improper trade, product defects, fiduciary breaches, account churning;
- Damage to physical assets - natural disasters, terrorism, vandalism;
- Business disruption and systems failures - utility disruptions, software failures, hardware failures;
- Execution, delivery, and process management - data entry errors, accounting errors, failed mandatory reporting, and negligent loss of client assets.

Effective management of operational risk must be of great concern to all financial institutions including banks. According to Tarantino (2008), operational risk management program should be made to incorporate governance, board of directors and management oversight and active involvement of line managers. Good operational risk management results in quality improvement and reduction in cost whilst a better one reduces the propensity of banks to record major losses through error or fraud or inability to provide quality services (Akkinzidis and Bouchereau, 2006). Akkinzidis and Bouchereau (2006) also indicate that numerous major banks have allocated 20% or more of their internal capital to operational risk.

The Basel Committee on Banking Supervision has also expressed the need to effectively and prudently manage operational risk to avoid major losses and has prescribed certain fundamental requirement for banks to implement under the Basel II Accord. (Jarrow, 2006; BIS, 2009; Moosa, 2010; Benhi, 2010). The three Pillars of Basel II, in addition to credit risk and market risk, provides the ingredients for an effective operational risk management (Chorafas, 2004; Akkinzidis and Bouchereau, 2006). Pillar 1 makes provision for minimum capital requirement internal review; Pillar 2 relates to supervision review process and supervisors review while the Pillar 3 deals with market discipline and external review (Akkinzidis and Bouchereau, 2006). Another key requirement under Basel II is for banks to establish an operational risk management (ORM) framework and compute an explicit capital charge once it is adopted. (Tarantino, 2008). Basel II also proposes three methodologies for calculating minimum operational risk capital charges. (Akkinzidis and Bouchereau, 2006). These methodologies are the Basic Indicator Approach, the Standardized Approach and the Advanced Measurement Approach. The Basic Indicator Approach focuses on the use of one indicator of operational risk for a bank's activity. The Standardized Approach requires banks to utilize different indicators for different business lines. The Advanced Measurement Approach requires banks to utilize their internal loss data in estimating their required capital. Akkinzidis and Bouchereau (2006), indicates the following eight fundamental strategies for effective operational risk management framework:

- Risk identification and assessment;
- Risk measurement, monitoring, and analysis;
- Risk profiling;
- Risk optimization;
- Planning and scheduling of risk actions and policies;
- Business continuity or contingency planning;
- Risk control and mitigation process;
- Risk reporting.

Pillar 1 of Basel III also addresses operational risk management. (Al-Darwish, Hafeman, Impavido, Kemp, & O'Malley, 2011, August).

2.6. Political Risk

Political refers to the probability that a host country takes certain political decisions including revolution and promulgation of laws that will have negative impacts on the bank's profits and/or goals. Brink (2004) broadly defines political risk analysis as "the analysis of that factors caused or influenced by the (in) action or reactions of stakeholders within a political system to event outside or within a country, will affect investment and business climate in such a way that investors will lose money or not make as much money as they expected when the initial decision to invest was made" (p. 1). According to Brink (2004), this definition shows that indicators of political risk are not necessarily political in nature but may also be socio-political, socio-economic, macro-economic, financial and environmental in nature.

Phung (n.d) identifies two categories of political risk namely macro risk and micro risk. He defines macro risk as the adverse actions that will impact all foreign firms including banks such as expropriation or insurrection and micro risk as the adverse actions that have the potential to only impact a certain industrial sector or business, such as corruption and prejudicial actions against companies from foreign countries.

The consequence of ineffective political risk management can be very detrimental to the success of international banks. Some authors have proposed the need to put in place effective measures to mitigate political risk including undertaking country research, negotiations of terms of compensation with host countries and taking of country risk insurance from institutions (Phung, n.d). According to Wagner (2000, October), "effective political risk management requires distinguishing developments that pose true risks—a well-defined threat to corporate performance from political events that are merely dramatic" (para. 7). The need for prudent political risk management has also been espoused by Basel Committee on Banking Supervision (BIS, 2009).

3. Conclusion and Recommendation.

There are various risks that affect the activities of international banks. Banks that lose sight of the existence of these risks and the need to put in place effective strategies to manage them stand the risk of crumbling in a competitive banking sector. A bank's ability to manage its risks determines its survival in the market place. Comparing gains and potential risks therein is the crux of decision (Drigă, 2012). He indicates that managing the risks arising from banking activities is the primary goal of every bank. It is therefore critical to examine banking risks, correctly measure them and implement appropriate management strategies to mitigate its impacts.

4. References

- Al-Darwish, A., Hafeman, M., Impavido, G., Kemp, M., & O'Malley, P (2011 August) Possible Unintended Consequences of Basel III and Solvency II. *IMF Working Paper (WP/11/187)*. Retrieved March 27, 2015 from <https://www.books.google>.
- Alexander, C (2008). *Market Risk Analysis, Value at Risk Models*. England: John Wiley & Sons. Retrieved March 24, 2015 from <https://www.books.google>
- Akkinzidis, I.S., & Bouchereau, V. (2006). *Guide to Optimal Operational Risk & Basel II*: NW: Auerbach Publications. Retrieved March 25, 2015 from <https://www.books.google>
- Basel Committee on Banking Supervision (2001, September). "Working Paper on the Regulatory Treatment of Operational Risk" Retrieved March 24, 2015 from http://www.bis.org/publ/bcbs_wp8.htm.
- Bank of Tanzania (2010). Risk Management Guidelines for Banks and Financial Institutions, 2010. Retrieved March 6, 2015 from https://www.bot-tz.org/adverts/PressRelease/RMGS_2010.pdf
- Basel Committee on Banking Supervision (1997). "Principles for the Management of Interest Rate Risk". Retrieved March 5, 2015 from <http://www.bis.org/publ/bcbs29a.pdf>
- Benhi, V.F (2010). *A critical Assessment of Basel III, Rating Based Approach*. Switzerland: Haupt Berne. Retrieved September 25, 2014 from www.books.google.com
- Benz, M (2002). *The Implications of the "New Capital Adequacy Framework" for Credit Risk and Capital Management in the Banking Industry*. (Diploma thesis). Retrieved March 27, 2015 from www.books.google.com
- BIS (2009). "Basel Committee on Banking Supervision Announces enhancements to the Basel II Capital Framework". Retrieved April 16, 2013 from <http://swissmc.blackboard.com/>
- Brink, C.H (2004). *Measuring Political Risk: Risks to Foreign Investment*. England: Ashgate Publishing Limited. Retrieved March 26, 2015 from www.books.google.com
- Bouteille, S., and Coogan-Pushner, D (2012). *The Handbook of Credit Risk Management: Originating, Assessing, and Managing Credit Exposures*. New Jersey: John Wiley & Sons. Retrieved March 20, 2015 from www.books.google.com
- Chorafas, D.N. (2004). *Economic Capital Allocation with Basel II- Cost, Benefit and Implementation*. Burlington, MA. Elsevier Butterworth-Heinemann. Retrieved September 26, 2014 from www.books.google.com

- Committee on Banking Supervision (2010). Basel III: A Global Regulatory Framework for more Resilient Banks and Banking Systems. Retrieved March 5, 2015 from <http://www.bis.org/publ/bcbs189.pdf>.
- Chan-Lau, J.A., Mitra, S & Li Lian Ong, L.L (2007, April). Contagion Risk in the International Banking System and Implications for London as a Global Financial Center. *IFM Working Paper 74*. Retrieved October 24, 2014 from International Monetary Fund website: <http://www.imf.org/external/pubs/ft/wp/2007/wp0774.pdf>
- Drigă, I (2012). Financial Risks Analysis for a Commercial Bank in the Romanian Banking System. *Annales Universitatis Apulensis Series Oeconomica*, 14(1), pp. 164-177. Retrieved December 18, 2014 from <http://www.oeconomica.uab.ro/upload/lucrari/1420121/14.pdf>
- Entrop, O., Zeisler, A., and Wilkens, M.,(2009) Quantifying the Interest Rate Risk of Banks: Assumptions Do Matter. *European Financial Management: Forthcoming*. Retrieved March 5, 2015 from <http://ssrn.com/abstract=1097681>.
- Greuning, V.H., & Bratanovic, S.B (2009). *Analyzing Banking Risk: A Framework for Assessing Corporate Governance and Risk Management*. (3rd ed.). Washington D.C: World Bank. Retrieved March 23, 2015 from <https://www.books.google>.
- Gup, B.E (1999). *International Banking Crises: Large-scale Failures, Massive Government Interventions*. United States of America: Greenwood Publishing Group. Retrieved March 5, 2015 from <https://www.books.google>
- IFM Research Department (1996). Managing Risks to the International Banking System. Retrieved October 24, 2014 from <http://www.imf.org/external/pubs/ft/fandd/1996/12/pdf/imf2.pdf>
- Kirke, L.N. (2011). Define what you perceive as the Largest Risks Facing the International Banking System? Retrieved October 24, 2014 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1978651
- Lessambo, F (2013). *The International Banking System: Capital Adequacy, Core Businesses and Risk Management*. London: Palgrave Macmillan. Retrieved March 24, 2015 from <https://www.books.google>
- Mbuya, J.C. (2008). *The Pillars of Banking*. Pretoria: John Chibaya Mbuya. Retrieved April 2, 2015 from <https://www.books.google>
- Moosa, I.A (2010). Basel II as a Casualty of the Global Financial Crisis. *Journal of Banking Regulation* 11, 95-114. Retrieved September 29, 2014 from www.palgrave-journals.com/jbr/journal/v11/n2/full/jbr20102a.html
- Obiri, O. (2012) . “The Largest Risk Facing International Banking”. SMC Working Paper. Retrieved March 5, 2015 from <http://ssrn.com/abstract=2091511>
- Phung, A. (n.d). “What is political risk and what can a multinational company do to minimize exposure?”. Retrieved March 26, 2015 from <http://www.investopedia.com/ask/answers/06/politicalrisk.asp>
- Ruozi, R., and Ferrari, P (2013). *Liquidity Risk Management in Banks: Economic and Regulatory Issues*. New York: Springer Heidelberg. Retrieved March 6, 2015 from <https://books.google.com>.
- Saunders, A., & Allen, C (2002). *Credit Risk Measurement: New Approaches to Value at Risk and Other Paradigms*. (2nd Ed.). New York: John Wiley & Sons. Retrieved March 27, 2015 from <https://books.google.com>.
- Siskos, D.V. (2013). The Largest Risks Facing the International Banking System. Retrieved October 24, 2014 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2344613
- Snowden, P., N (2012). *Emerging Risk in International Banking: Origin of Financial Vulnerability in the 1980s*. New York: Routledge. Retrieved March 5, 2015 from <https://books.google.com>

- Sophastienphong, K., & Kulathunga, A (2008). “*Getting Finance in South Asia 2009: Indicators and Analysis of the Commercial Banking Sector*”. Washington D.C: The World Bank. Retrieved March 31, 2015 from www.books.google.com
- Sy, A (2005). Managing the Interest Rate Risk of India Bank’s Government Securities Holdings. *IMF Working Paper (WP/05/78)*. Retrieved March 5, 2015 from www.books.google.com.
- Tarantino, A. (2008). *Operational Risk in Financial Services*. New York: John Wiley & Sons. Retrieved March 25, 2015 from www.books.google.com
- Van Greuning, H., and Bratanovic, S.B (2009). *Analyzing Banking Risk: A Framework for Assessing Corporate Governance and Risk Management*. (3rd Ed.). Washington D.C: World Bank Publications. Retrieved March 24, 2015 from www.books.google.com
- Wagner, D (2000, October). “Defining Political Risk”. Retrieved March 26, 2015 from <http://www.irmi.com/expert/articles/2000/wagner10.aspx>
- Wheatley, M (2012). The 3 Biggest Risks Facing HSBC. Retrieved October 24, 2014 from <http://www.fool.com/investing/general/2012/12/21/the-3-biggest-risks-facing-hsbc.aspx>.